

Notice of Allowability

Application No.

10/713,885

Examiner

ANH PHUNG

Applicant(s)

HIROYUKI OHMORI

Art Unit

2824

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to ____.
2. ☒ The allowed claim(s) is/are 1-6.
3. ☒ The drawings filed on 14 November 2003 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: ____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.


THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date ____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date ____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date ____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date ____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☒ Other Search History.


ANH PHUNG
PRIMARY EXAMINER

Detailed Action

1. In response to the U.S. Application Serial No. 10/713,885 filed on November 14, 2003, claims **1-6** are pending in the application.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Examiner's Statement of Reasons for Allowance

3. Claims **1-6** are allowed.

Saito et al. (US 6,676,821), Chen et al. (US 6,683,815), Okazawa (US 6,643,168), Chen (US 6,469,926) and Gallagher et al. (US 5,841,692) disclose a magnetic storage element similar to that of the present application, but fail to teach:

“wherein said storage layer is composed of a first magnetic layer mainly composed of a transition metal and a second magnetic layer mainly composed of a rare-earth metal which are directly stacked, and a magnetization amount of said first magnetic layer is smaller than that of said second magnetic layer at a room temperature” as claimed in the independent claim 1; or

“wherein said storage layer is composed of a first magnetic layer mainly composed of a transition metal and a second magnetic layer mainly composed of a rare-earth metal which are directly stacked, and a magnetization amount of said first magnetic layer is smaller than that of said second magnetic layer at a room temperature, said method comprising the steps of heating said storage layer and applying a magnetic layer to the storage layer to record a magnetization state having one direction on the storage layer, and heating said storage layer to have a magnetic

Art Unit: 2824

coupling work on said first magnetic layer and said pinned layer so as to record a magnetization state having the other direction on the storage layer” as claimed in the independent claim 3; or

“a magnetization amount of said first magnetic layer is smaller than that of said second magnetic layer at a room temperature; a reader for reading out a relative magnetization between said storage layer and said pinned layer depending on a change of an electrical resistance; a wiring for applying a current induced magnetic field having one direction to said storage layer; and a heater for heating said storage layer” as claimed in the independent claim 4.

Any comments considered necessary by applicants must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comment on Statement of Reasons for Allowance”.

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **ANH PHUNG** whose telephone number is **(571) 272-1883**. The examiner can normally be reached on Monday-Friday from 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **RICHARD ELMS**, can be reached on **(571) 272-1869**. The fax phone number for the organization where this application or proceeding is assigned is **(703) 872-9306**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

Art Unit: 2824

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at **866-217-9197** (toll-free).

Art Unit: 2824

AKP

A handwritten signature in black ink, appearing to read "Anh Phung". The signature is fluid and cursive, with the first name "Anh" and last name "Phung" clearly distinguishable.

**ANH PHUNG
PRIMARY EXAMINER**